

CLAIMS:

- 1bA 1. A method for forming an elongated fused quartz article comprising:
 feeding a generally SiO_2 material into a furnace;
 fusing said SiO_2 material in a melting zone of said furnace a gas
 atmosphere comprising at least one carrier gas and an oxidizing gas; and
 drawing the fused SiO_2 material from the furnace to form said article.
2. The method of claim 1 wherein said melt zone comprises refractory
 material walls having a lining of a material selected from rhenium, osmium, iridium,
 platinum and mixtures thereof.
3. The method of claim 1 wherein said carrier gas is hydrogen or a
 noble gas.
4. The method of claim 1 wherein said oxidizing gas is water vapor.
5. The method of claim 1 being a continuous process.
6. The method of claim 1 wherein said article is a tube.
7. The method of claim 1 wherein said article is a rod.
8. The method of claim 2 wherein said refractory material is
 comprised of tungsten, molybdenum or mixtures thereof.
9. The method of claim 2 wherein said protective lining material
 comprises rhenium.
10. A furnace for melting silica for fusion into a desired shape, said
 furnace comprising a body having a melting zone and a drawing zone, said melting
 zone including a gas feed inlet for introducing an oxidizing gas.
11. The furnace of claim 10 wherein said melting zone comprises
 walls of a refractory material including an inner barrier.
12. The furnace of claim 11 wherein said barrier layer comprises
 rhenium, osmium, iridium and mixtures thereof.

13. The furnace of claim 12 wherein said refractory material comprises tungsten, molybdenum or mixtures thereof.
14. The furnace of claim 11 wherein said barrier layer provides a sealed chamber within said refractory material walls, said gas feed inlet opening into said sealed chamber.
15. The furnace of claim 1 wherein said barrier layer is physically separated in at least some areas from said refractory material walls.
16. The furnace of claim 15 including a gas feed inlet for introducing between the barrier layer and the refractory material walls.
17. A quartz article produced according to the method of claim 1.
18. An optical fiber including a sheath comprised of the article of claim 17.